

Coal Mine Safety in China: Can the Accident Rate Be Reduced?

Friday, December 10, 2004 at 10:00 AM

Rayburn House Office Building Room 2255

Statement of

Dave Feickert

The global economic and energy context – last year China contributed a third of world economic growth. As a result of the size and speed of growth, China's energy demand has been increasing rapidly, with electricity generating capacity equivalent to total UK capacity being added every two years. This has led to a rapid increase in both indigenous and imported energy use, leading to upward pressure on international prices, especially of oil and coal. Chinese energy demand is not only strategic for its own economy, but it has become a strategic factor in global demand, price structure and, potentially, supply.

Coal Production in China

- Chinese coal production increased from 929 million tonnes in 2001 to 1,431 million tonnes in 2003 (BP 2004 Statistical Review of World Energy – converted from Mtoe to metric Mtce). Actual physical tonnage was 1.7 Bn tonnes in 2003 which, by August 2004, was 15% higher than for the same period in 2003.
- With such pressure on production, pressure flows through onto working conditions, especially as the industry is so various in its nature. In villages, some small mines are virtually equivalent to the 'Bell pits' existing in 18th century Britain, while large new mines elsewhere are highly mechanised. Small mine output increased by 29% in 2003 (36% of total); 'county' mines make up 17% of output and large state mines produce 48% of output.

Coal Mine Safety Statistics

- Figures provided to the ILO reveal 6,434 fatalities in 2003, 561 fewer deaths than in 2002. The first six months of 2004 show 346 fewer deaths than in 2003. In 2003 the fatal accident rate in large mines was reported as 1.1/Mt; in county mines, 3/Mt; in small mines 7.6/Mt. The US Mines Rescue Association has tabulated the main location by mine site for fatal accidents in 2002 (attachment one).
- Given the nature of the industry the safety and health problems common to coal industries elsewhere often exist in more dramatic form: dust/heat/noise – silicosis, pneumoconiosis, hearing loss and vibration; gas detection, fire and explosion prevention are major issues; bureaucratic problems in emergency response; inspection, especially in smaller mines, is inadequate; training is limited to larger mines; mines with a single entry/exit (not in compliance with ILO C176 Safety and Health in Mines Convention, 1995).

Historical comparisons – the experience of the UK

- Over 100,000 miners have been killed at work in the UK since national records were first kept in 1850. Many thousands died before that date and hundreds of thousands have been seriously injured at work or were hit by serious occupational illness.

- During the second part of the 20th century the UK came to have one of the lowest accident rates in the world, but this took more than a century of sustained effort to achieve. In 1910, when the UK workforce was above 1 million men, 1,818 miners were killed in mine accidents. In the peak production year of 1913 (287 Mt) 1,785 were killed, giving a fatal accident rate per Mt slightly higher than the current Chinese rate (6.2/Mt vs. 5/Mt).

UK safety structure

- By 1911 the UK had a well-structured system of statutory safety inspection, a statutory role for pit safety supervisors (deputies) and a statutory role for worker inspectors (elected by the workforce and providing a statutory inspection report), a role that was created originally in 1872. (More detail is provided in Mr McNestry's evidence.)
- Moreover, the industry had a trade union structure that re-enforced and defended these statutory functions.
- Following nationalisation, much more progress was made in 1946 with the introduction of a system of safety consultation operating at all levels and later, with the 1954 Mines and Quarries Act, the 'safety bible'. As modern monitoring and detection technologies became available it became possible to improve safety still further.
- By the late 1980's the UK deep mine industry had become one of the world's most technologically advanced. The rapid closure of the industry in the 1990's had little to do with either its safety or cost structure but was a consequence of the way electricity supply industry was privatised.

Proposals for joint future work

A number of initiatives are already being taken, offering support to China's coal mining industry:

- The ILO is working directly with China on a number of issues, including a successful project to train small-scale miners in Hunan province. It is lobbying the Chinese Government to ratify C176, the ILO Safety and Health in Mines Convention, 1995. The US, South Africa, Zimbabwe, Zambia are among the mining countries that have already done so. Within the EU those that have ratified are: Austria, the Czech Republic, Finland, Germany, Ireland, Poland, Portugal, Slovakia, Spain and Sweden. Luxembourg has decided to ratify all ILO OSH Conventions and, during its forthcoming Presidency of the EU, will seek to persuade the others, including the UK.
- A joint ILO/ICEM/ICMM delegation (international federations of energy and mining trade unions and employers) will have returned from China by 10 December, after investigating how a tripartite approach from outside as well as inside China could be used to improve mine safety.
- A similar and linked Australian tripartite initiative is also taking shape.
- The US National Safety Council has a contract to improve mine inspection and mine rescue.
- Other initiatives (including in the EU) are being developed that could provide practical support, based on experience gained in other mining countries.

22.10.04

Appendix

List of Coal Mine Accidents in China, 2002

In terms of fatalities, accidents are categorised into three types: serious - 3 deaths or

above; very serious - 10 deaths or above; extremely serious - 30 deaths or above. The following table excludes 'serious accidents.'

Date (mm-dd)	Province/Municipality	Name and Location	Type	Fatalities	Mine ownership/Legal status
12-23	Guizhou	Sanchahe Coal Mine, Qiannanbuzhou District	Blast	17 dead, 2 injured	Privately run with permit
12-22	Gansu	Xiaonangou Coal Mine, Lanzhou City Jincheng Tourism Co., Baiyin City	Blast	11 dead	Check passed but permit not issued yet
12-21	Guizhou	Zhongxin No.3 Coal Mine, Bijie District	Gas build-up	12 dead	Township and village mine with permit
12-06	Jilin	Wanbao Mining Bureau Coal Shaft No.2, Taonan city	Fire	30 dead	State-owned; victims' families put in different lodgings to prevent collective action
11-14	Yunnan	Guoshuigou Coal Mine, Kunming City	blast	11 dead	Privately run; official check passed; permit not issued yet
11-10	Shanxi	Taixi Coal Mine, Jinzhong city	Blast	37 dead, 17 survivors	Village mine with no permit
11-08	Shanxi	Xipan Village Coal Mine, Yangquan city	Blast	26 dead, 9 survivors	Township and village mine with permit
10-31	Inner Mongolia	Changsheng Coal Mine, Baotou City	Blast and blaze	14 dead	Township and village mine with permit
10-29	Guangxi	Ertang Coal Mine, Nanning city	fire	30 dead, 5 survivors	State-owned

10-23	Shanxi	Zhujiadian Coal Mine, Luliang District	blast	44 dead, 22 survivors	State-owned
09-10	Henan	Daluzai Coal Mine, Hebi City	blast	13 dead, 22 survivors	Township and village mine with permit
09-03	Hunan	Qiuhe Mining Co. Ltd, Loudi city	Gas build-up	39 dead, 16 survivors	Shareholding mining co., check passed
08-29	Guizhou	Sixiang Coal Mine, Bijie District	Water leakage and flood	16 dead	Privately run with no permit; 16 missing, presumably dead
08-14	Jiangxi	Yongshan Coal Mine, Jingdezhen city	blast	13 dead	State-owned but illegally subcontracted; ordered to close down
08-12	Heilongjiang	Lixin Coal Mine, Jixi City	blast	11 dead	Township and village mine with no permit
08-10	Henan	Guowan Coal Mine, Zengzhou Mining Bureau	Water leakage and flood	10 dead	State-owned
08-04	Shanxi	A mine shaft owned by Chiyu Labour Services Co., Houzhou city	fire	18 dead, 1 survivor	Check not passed yet
07-24	Guizhou	Taojiawan Coal Mine, Liupanshui city	blast	18 dead, 7 injured	Privately run with no permit
07-15	Shanxi	Dayangquan Coal Mine, Yangquan city	blast	12 dead	State-owned
07-08	Heilongjiang	Dingsheng Coal Mine, Hegang city	blast	44 dead	Township and village mine; check passed; business permit not issued yet

07-07	Guangdong	Lianda Coal Mine, Shaoguang City	blast	10 dead	Township and village mine with permit
07-04	Jilin	Fuqiang Coal Mine, Baishan city	blast	39 dead	Privately run with no permit
07-03	Shaanxi	Xigou Coal Mine, Weinan city	Water leakage and flood	15 dead	Township and village mine with permit; 15 trapped, presumably dead
06-28	Chongqing	Shuijiang Coal Mine, Nanchuan County	blast	10 dead, 3 injured	Shareholding company
06-24	Hebei	Yongfa Coal Mine, Zhangjiakou city	Rain storm and flood	16 dead	Township and village mine; check not passed; to be closed
06-20	Heilongjiang	Chengzihe Coal Mine, Jixi city	blast	124 dead	State-owned
05-30	Liaoning	Guanshan Coal Mine, Beipiao Mining Company	blast	14 dead	State-owned
05-26	Hunan	Qingshu Coal Mine, Loudi city	Gas build-up	15 dead	Township and village mine with permit
05-23	Heilongjiang	Jiacheng Coal Mine, Shuangya city	fire	17 dead, 4 survivors	Privately run, check not passed yet
05-15	Hunan	Xinyuan Coal Mine, Loudi City	Gas build-up	18 dead	Township and village mine; city and county check passed; provincial check not passed yet
05-15	Hunan	Hongqi Coal Mine, Shaoyang	Water leakage	12 dead	Township and village mine

		City	and flood		with permit
05-04	Shanxi	Fuyuan Coal Mine, Hejin city	Water leakage and flood, followed by fire	21 dead, 2 survivors	Township and village mine without permit; cover-up attempts by mine boss
05-04	Guizhou	Shaft in Liying Village, Bijie District	blast	23 dead	Privately run without permit
05-04	Hunan	Saihai No.2 Mine, Loudi City	Gas build-up	13 dead	Township and village mine with permit
04-25	Hebei	Linxi Coal Mine, Kailuan Mining Bureau, Kailuan City	roof collapse	11 dead	State-owned
04-24	Sichuan	Huashan Coal Mine, Panzhihua Mining (Group) Co. Ltd., Panzhihua City	blast	23 dead	State-owned
04-22	Chongqing	South Mine, Zhongliangshan Coal Field and Gas Company	Gas build-up	15 dead	State-owned
04-19	Shanxi	Hanjiagou Village 7.1 Coal Mine, Changzhi City	blast	12 dead, 12 survivors	Township and village mine with permit
04-08	Heijongjiang	Donghai Coal Mine, Jixi Mining Bureau	blast	24 dead, 14 seriously injured, 23 injured	State-owned
03-29	Henan	Xinfeng Mining Bureau No.2 Mine, Xuchang City	blast	23 dead, 3 injured	State-owned

02-28	Liaoning	Sanduhao Coal Mine, Fuxin City	fire	22 dead	Township and village mine with permit; 3 dead, 19 missing, presumably dead
02-11	Inner Mongolia	Hongqi Coal Mine, Hulunbeierkeshi City	Fire and carbon monoxide poisoning	14 dead	Township and village mine; check passed
01-31	Chongqing	Nantong Mine, Nantong Mining Bureau	Gas build-up	20 dead, 2 injured	State-owned; 4 dead, 16 missing, presumably dead
01-28	Hunan	Shantangchong Coal Mine, Hengyang City	blast	14 dead, 6 injured, 2 survivors	Township and village mine; 3 dead, 11 missing, presumably dead
01-26	Hebei	Nuanerhe Coal Mine, Chengde City	blast	28 dead, 12 injured	State-owned; 19 killed in the first blast; 8 killed in the second blast the next day, and 1 missing, presumably dead
01-21	Hubei	Tanjiadong Coal Mine, Jingzhou City	fire	12 dead	Township and village mine; check passed
01-14	Yunnan	Shuijie Village, Wenshan Zhou	Gas build-up	25 dead (7 women)	Privately run with no permit

Sources: China Labour Bulletin, State Administration of Coal Mine Safety Supervision (SACMSS at <http://www.chinacoal-safety.gov.cn>) and State Administration of Work Safety (SAWS at <http://www.chinasafety.gov.cn>).